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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/624,738	07/22/2003	David T. Proefke	GP-302103	7167

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EXAMINER	
CAVALLARI, DANIEL J	
ART UNIT	**PAPER NUMBER**
2836	

DATE MAILED: 05/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/624,738	PROEFKE ET AL.	
	Examiner	Art Unit	
	Daniel J. Cavallari	2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 February 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *5-7 and 10-18* is/are allowed.

6)☒ Claim(s) *1-4,8 and 9* is/are rejected.

7)☒ Claim(s) *19 and 20* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 July 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

The examiner acknowledges a submission of the amendment filed on 2/14/2006. The amendments to claims 1, 3, 5, and 19 are accepted.

Response to Arguments

The previous drawing objection has been withdrawn however the examiner notes that it is common practice, especially with flow charts, to use sequential numbering. Although the use of non-sequential, and seemingly random, numbering in the applicant's figures are confusing, the applicant is consistent in the specification making the drawings complete. The applicant is directed to Kusunoki (5, 912,631) Figures 2-3, for an example of a proper flow chart.

The applicant is correct in the assumption that the 35 U.S.C. 112 rejection in the non-final office action labeled for "claim 12" was meant to reference claims 1 and 2. In view of the applicant's amendments of claims 1 and 2, the previously stated 112 rejection has been withdrawn.

Applicant's arguments, filed 2/14/2006, with respect to claims 1-2, have been fully considered and are not persuasive. The applicant argues that Kusunoki does not use "historical data", as also noted by the examiner and combined in a 103 rejection to overcome this limitation. As previously discussed, Harrison et al. teaches storing the position of a door once every second (See paragraph 36) which is advantageous to

actively pooling the sensor (107 & 112), as currently done by Kusunoki (See Column 3, Line 27 to Column 4, Line 5 & Figure 1). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the "historic data" (as read on by placing vehicle door status information into memory once every second) vehicle door information as taught by Harrison et al. into the vehicle locking system of Kusunoki.

Applicant's arguments with respect to claims 3, 4, 8, & 9 have been considered but are moot in view of the new ground(s) of rejection.

Claims 5-7 & 10-18 remain allowed for reasons indicated in the last office action.

Claim Objections

Claims 19 & 20 are objected to because of the following informalities:

- The limitation of "a memory configured to store a history of door opening and closing sequences including duration of door opening" is an improper sentence. The claim should be re-written such as "a memory configured to store a history of door opening and closing sequences including door opening durations..."

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-4, 8, 9, 19, & 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kusunoki and Harrison et al. (US 2001/0047244 A1).

In regard to Claims 1 & 2

Kusunoki teaches

- A plurality of vehicle door locks (110 & 111) (See Figure 1 & Column 4, Lines 6-17) each configured to lock and unlock in response to a first type of signal read on by the command signal from the output port (103)
- A plurality of sensors (107 & 111) each configured to sense opening and closing of an associated vehicle door and to send second signals in response to opening and closing of the vehicle door (See Column 3, Line 65 to Column 4, Line 5 & Figure 1)
- A lock requester, read on by the wireless transmitter (108) configured to send a third signal, read on by the coded signal, to the control module (100) (See Column 3, Lines 46-64 & Figure 1)

- A control module (100) configured to receive the second signals from the sensors (107 & 112) and the third signal from the lock requester (108), the control module comprising a memory (101A & 101B) and a timer (1st, 2nd, 3rd Timer Units)
- A timer settable in response to the history of the open or closed signal of a door (112) which checks the state of the door (See Step 407, Figure 5) and if the door was open, suspends a first timer (See Step 411, Figure 6).
- The control module configured to send a first type of signal to the plurality of vehicle door locks causing the vehicle door locks to lock (Step 410, See Figure 5) in response to timing out of the timer (Step 409, See Figure 5) following receipt of the third signal (Step 402, See Figure 5)

Kusunoki fails to teach storing a history of the second signals produced by the door sensors and instead actively pools the sensors (107 & 112). However, it is well known in the art to read in the status of a sensor and store the information into memory as opposed to continuously monitoring the sensors. Harrison et al. teaches stroing the position of a door into memory (402) (See Paragraph 36).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to store the position of the door into memory (101A & 101B, See Figure 1) and then use this stored information at step (208, See Figure 2) in which to determine if a door is open. The motivation would have been to conserve power by not actively pooling the sensors (107 & 112, See Figure 1) which consumes power every time they are activated.

In regard to Claim 3

Kusunoki teaches:

- Setting a timer to an adaptive door lock delay time in response to a history of vehicle door openings and closings (See Step 407, Figure 5) in which the process begins and if all doors were closed (START, See Figure 9 & Column 10, Lines 45-50) and the trunk door is open (Step 407, Figure 5), the process proceeds to (Step 2) and the timer is suspended
- Initiating a door lock request (Step 402, See Figure 5)
- Monitoring door open status (See Steps 401, 407, 408, & 417, Figure 5 and Step 412, Figure 6)
- Starting a timer in response to the door lock request (Step 402, Figure 5) and door opening status (Step 401, Figure 5)
- Locking the doors of the vehicle at the expiration of the delay time (Step 409, See Figure 5)

Kusunoki fails to teach storing a history of the vehicle door opening and closings and updating the stored history and instead actively pools the sensors (107 & 112) to determine the state of the vehicle door. However, it is well known in the art to read in the status of a sensor and store the information into memory as opposed to continuously monitoring the sensors. Harrison et al. teaches storing the position of a door into memory (402) and updating the history once every second (See Paragraph 36).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to store the position of the door into memory (101A & 101B, See Figure 1) and then use this stored information at step (208, See Figure 2) in which to determine if a door is open. The motivation would have been to conserve power by not actively pooling the sensors (107 & 112, See Figure 1) which consumes power every time they are activated.

Kusunoki further teaches:

In regard to Claim 4

- Setting the timer to a first delay time (Step 406, Figure 5), modifying the delay time (Step 411, Figure 6) in response to a pattern of vehicle door openings and closings (Step 407, Figure 5 & Step 412, Figure 6) following the door lock request (Step 402, Figure 5)

In regard to Claim 8

- The step of adding an increment of time to the adaptive door lock delay time (Step 411, Figure 6) following an unlock request (404) within a predetermined length of time after the step of locking the doors (Step 405, Figure 5). The predetermined length of time after the step of locking the doors being the next request to open the doors after they have been locked (Step 405, Figure 405) (See Column 11, Lines 1-22).

In regard to Claim 9

- Initiating a door lock request comprising the steps of opening a door (Step 401 (YES branch), Figure 5), activating a lock request mechanism (Step 414, Figure 5) (See Column 12, Lines 11-24), and closing all doors of the vehicle (Step 408, Figure 5, NO branch)

Allowable Subject Matter

Claims 19 & 20 would be allowable if re-written to overcome the previously stated objection stated above.

Claim 19 recites the limitation of "a memory configured to store a history of door opening and closings sequences including duration of door opening...".

Prior art teaches storing the opening and closing of a vehicle door into memory (See Harrison et al. US 2001/0047244 A1, Paragraph 36). Prior art further teaches capturing the speed, direction, and position of a door which could be used to determine the delay between opening and closing of each door (See Fukumura et al. US 2003/0074966) however there is a lack of motivation to combine the prior art on record with that of Kusunoki.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Cavallari whose telephone number is (571)272-8541. The examiner can normally be reached on Monday-Friday 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on (571)272-2800 x36. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Daniel Cavallari

April 19, 2006

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